

# Transport Appendix



### Background information:

The **primary route network** (PRN) designates roads between places of traffic importance across the UK, with the aim of providing easily identifiable routes to access the whole of the country. Primary routes are marked green on most road maps, as opposed to the more common red of an ordinary A road; and road signs are green with white and yellow text.

The PRN is constructed from a series of locations (primary destinations) selected by the Department for Transport, which are then linked by roads (primary routes) selected by the local highway authority

The criteria for defining a primary destination are purposefully flexible, in order to allow the PRN to serve the whole of the country. Strict criteria based on population size or traffic levels would prevent the PRN reaching more rural corners of the country. The inclusion or exclusion of individual locations is therefore a matter of DfT discretion, taking the following factors into account:

- **Population** – the size of the settlement
- **Attraction** – the amount of traffic that will come to this location
- **Nodes** – locations that motorists are very likely to pass through in order to get to a final destination
- **Density** – the number of primary destinations in the area.

All primary routes (other than those included on the PRN because they are trunk roads<sup>1</sup>) consist of an A road or sequence of A roads, forming a continuous route between two primary destinations

All UK roads (excluding motorways) fall into the following four categories:

- **A roads** – major roads intended to provide large-scale transport links within or between areas.
- **B roads** – roads intended to connect different areas, and to feed traffic between A roads and smaller roads on the network.

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<sup>1</sup> A trunk road is a road owned and operated by the Secretary of State for Transport. Trunks roads form part of the Strategic Road Network

- **Classified unnumbered** – smaller roads intended to connect together unclassified roads with A and B roads, and often linking a housing estate or a village to the rest of the network. Similar to ‘minor roads’ on an Ordnance Survey map and sometimes known unofficially as C roads.
- **Unclassified** – local roads intended for local traffic. The vast majority (60%) of roads in the UK fall within this category

These four classes form a hierarchy. Large volumes of traffic and traffic travelling long distances should be using higher classes of road; smaller amounts of traffic travelling at lower speeds over shorter distances should be using lower classes of road.

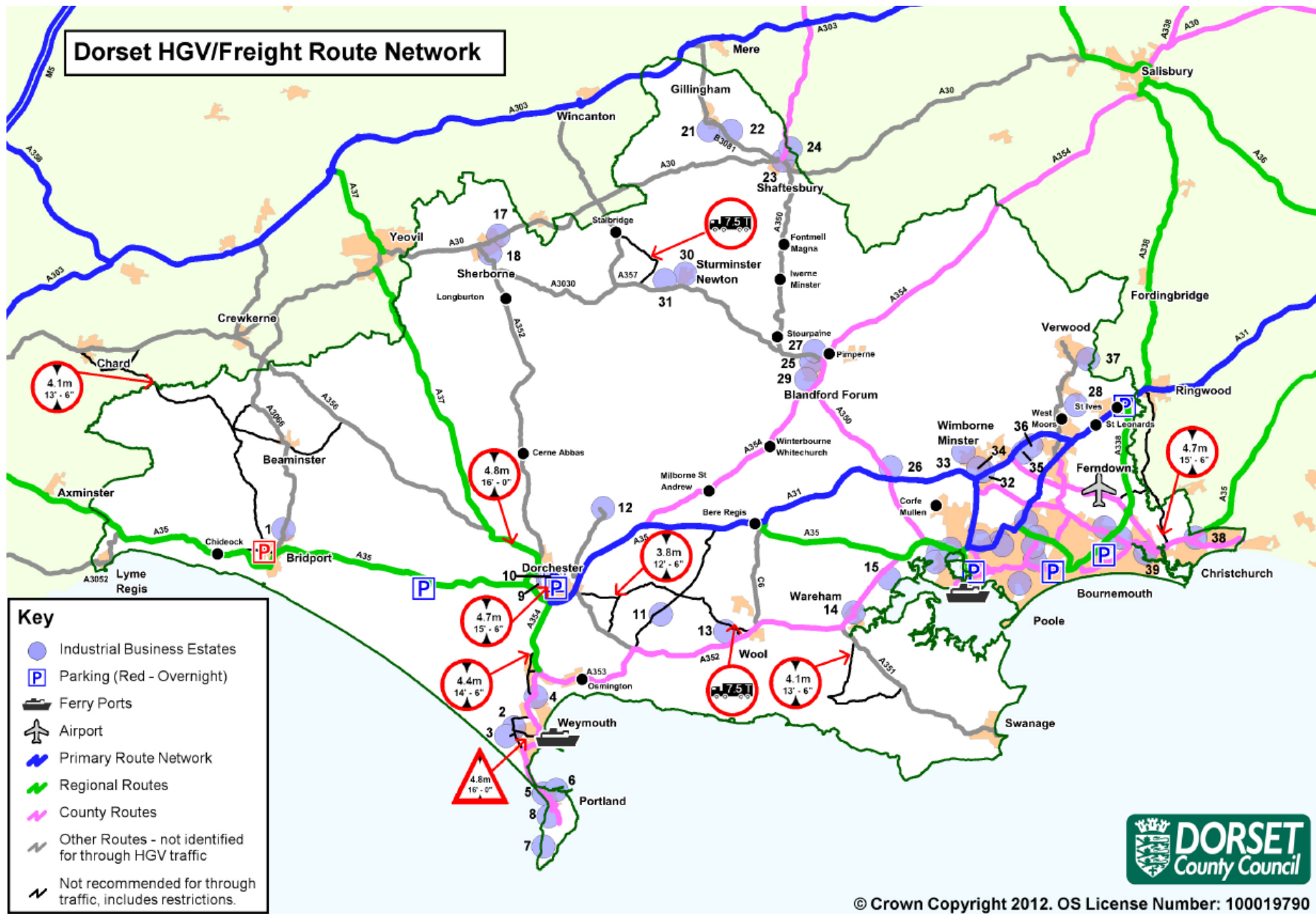
### Overview of roads in North Dorset

None of the A roads in North Dorset are deemed “suitable for HGV through traffic” – see Dorset HGV/Freight Route Network Map (A30/A350/A357). The maps of Somerset and Wiltshire have also been provided, to look at the HGV routing options more holistically.

As such many of the B and C roads are used as alternative routes as they are deemed more efficient. These include, amongst others, the B3081/B3092/B3095/C13.

Use of these roads mean that the traffic counting positions used by Dorset Council and Highways England don’t always reflect the true numbers of traffic or the flow/route local traffic takes as it merges onto or disperses away from these “main routes”.

In December 2017, Dorset County Council Cabinet were advised in a report that the A350 had the highest accident rate of all rural Dorset’s A roads. The A350 group have continued to work with those involved collating this information and regularly monitor accident rates from Shaftesbury/Wilts border to the A350/A31 interchange. As only serious accidents are recorded this is not reflective of the disruption these cause but as this standard is applied across the whole local authority area it is the only measure currently available.



## Shaftesbury

Shaftesbury is intersected by the A30, and B3081 (east/west) and the A350 north/south.

The A roads provide primary routes to the following primary destinations (as outlined in DfT's road classification changes in 2012) –

- Warminster to the north (linking also to the A303) and linking to the M4 via Bath and Chippenham and on to the M5
- Blandford Forum, Dorchester, Weymouth, Bournemouth and Poole to the south including the cross channel ferries
- Yeovil to the west
- Salisbury to the east

The retention of land for the Shaftesbury by-pass corridor was supported by all members of the A350 Community Group when reviewed in the recent update to the Local Plan by North Dorset District Council, together with similar bypass routes on the A350 south of Blandford Forum.

This will no doubt be reviewed again in the short term by the new Dorset Council.

Please see extracts for all east/west and north/south routes affecting Shaftesbury from the Buro Happold North and North East Transport Study mentioned in your current Transport appendix.

**Please note though that this report is nearly 10 years old.** At this point in time, sat nav usage was relatively new, and even this has been superseded by the mapping capabilities of smart phones. Also, the haulage industry has seen massive change, theoretically becoming mobile warehouses as the logistics industry is responding to the growing demand on internet retail trends and demand for next day delivery. **See Appendix E1**

## DfT initiatives

### Road Investment Strategy (RIS1 & RIS2)

In 2014 DfT announced its Road Investment Strategy (RIS). This planned to set out a long-term approach to improve England's motorways and major roads (the 'strategic road network') and identified 14 routes that could be developed into "expressways".

<https://www.gov.uk/government/collections/road-investment-strategy>

The A303 was one of these 14 routes, with long term plans to make it a dual carriageway between the M3 and M5.

For North Dorset, this could represent much higher volumes of traffic, or alternatively an opportunity to attract investment and more varied employment options.

This opportunity was seized on by Dorset County Council, Wiltshire Council, and BANES (Bath & North East Somerset) as a mechanism to create a north/south route between the M4 and the ports of Poole and Portland. Please see the **South of England North - South Connectivity Study - January 2017**. The tri-council project involved submitting a bid for funding for a further study for inclusion in **RIS2**

<https://www.gov.uk/government/publications/draft-road-investment-strategy-2-government-objectives>

This report suggested three possible routes within Dorset

- **A338 Corridor:** *the A338 is the key corridor linking Bournemouth with Salisbury and points further north. In excess of 60,000 vehicles per day are common and the tourism and business destinations that it serves would be unable to cope without it. Many sections of the road are in a poor state of repair having effectively reached the end of their useful life. Complete reconstruction is now required. The section of A338 between Ringwood and Salisbury is single carriageway with multiple bends and high traffic volumes. The road's safety record is also poor whilst there is extensive HGV traffic through small villages;*
- **A350 Corridor:** *as the most direct route northwards, this is a strategically important corridor and handles large volumes of traffic. Journey times on the road are unreliable as there are several narrow sections with frequent tight bends and undulations. The road also passes through ten small villages and at many locations it is difficult for HGVs to pass each other. Dorset County Council has long sought to improve the A350 sufficiently to provide an effective north - south route but this has not been possible due to the substantial funding required (as well as environmental factors);*
- **A37 Corridor:** *the A37 provides part of a direct route from Weymouth and Portland to the M5. The route is important for freight an improved A37 to M5 corridor will provide a realistic alternative for freight traffic using the A350. A major consideration is the trunking of the A37 to provide a more suitable north - south link. The A37 also has a parallel rail route that similar to the road corridor, exhibits poor connectivity through low frequencies south of Westbury and significant overcrowding in the Bristol*

*To conclude, good north - south connectivity is essential in Dorset, especially for freight traffic as the transformative corridors will provide good access to the ports and will promote economic growth in South East Dorset and in Weymouth, Portland and Dorchester. (page 18)*

## Major Road Network

This was announced by DfT in December 2017. The major road network aims to identify routes currently maintained by local authorities that support the strategic road network maintained by Highways Authorities, i.e government funded routes. Substantial funding will be made available to each local authority to invest in the routes identified within their locality.

<https://www.gov.uk/government/consultations/proposals-for-the-creation-of-a-major-road-network>  
<https://www.gov.uk/government/publications/major-road-network-and-large-local-majors-programmes-investment-planning>

The routes identified for inclusion within Dorset include (see map)

- A37 Corridor: (Dorset Council – South West)
- A338 Corridor (Bournemouth, Christchurch, Poole)

This means that North Dorset is unlikely to receive a share of major funding from monies available for the development of the MRN (£100m per local authority). The MRN will support the planned housing development (3500 homes) in Dorchester in the new Dorset Council area and assist this growth area.

Wiltshire Council have advised the A350CG that they have no plans to develop the A350 south of Warminster. Wiltshire have been a unitary authority for a number of years and have worked successfully with SWLEP (Swindon & Wiltshire LEP) to concentrate on 3 growth areas that are intrinsically linked to infrastructure that can be enhanced – see page 14 South of England North-South Connectivity: Economic Study WSP Wiltshire County Council, Dorset County Council and Bath & North East Somerset Council

1. Swindon & the M4
2. Salisbury & the A36
3. The A350 Growth Corridor (Malmesbury to Warminster)

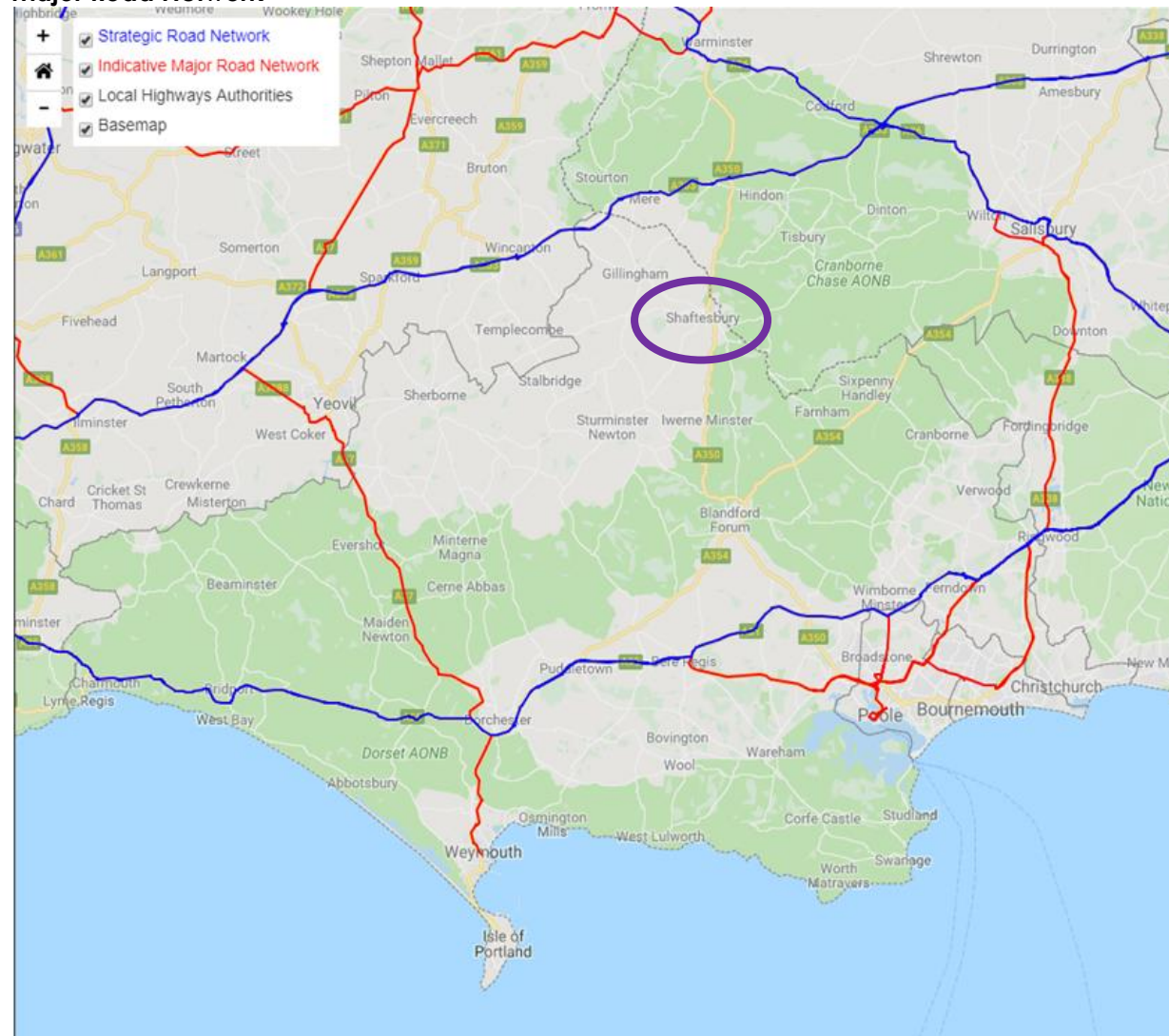
<https://swlep.co.uk/about/our-strategies>

The MRN proposed routes recognize these areas and so Wiltshire has no need to rely on North Dorset.

When first designated in 1922 the A350 ran only from Warminster to Poole. By 1948 the road had been extended north from Warminster to Chippenham on the former routes of the A363 and the A364. In the 1990s the road was extended

north from Chippenham to the M4 Motorway by renumbering the A429. The Chippenham bypass has since been converted from single to dual carriageway by means of funding from DfT's Challenge Fund, and junction 17 of the M4 was improved.

### Major Road Network



**This map shows The Major Road Network proposal.**

The [Transport investment strategy](#) sets out the government's priorities and approach for future transport investment decisions. The creation of a Major Road Network (MRN) across England is a key step in the delivery of the strategy.

The MRN will help:

- reduce congestion
- support economic growth and rebalancing
- support housing delivery
- support all road users
- support the Strategic Road Network

The MRN will also allow for dedicated funding from the National Roads Fund to be used to improve the middle tier of the busiest and most economically important local authority 'A' roads.

The map illustrates the strategic road network in Blue and the indicative major road network in Red



This was announced by DfT in December 2017. The major road network aims to identify routes currently maintained by local authorities that support the strategic road network maintained by Highways Authorities, i.e. government funded routes. Substantial funding will be made available to each local authority to invest in the routes identified within their locality.

## Dorset Local Enterprise Partnership

In England, **local enterprise partnerships** (LEPs) are voluntary **partnerships** between **local** authorities and businesses set up in 2011 by the Department for Business, Innovation and Skills to help determine **local** economic priorities and lead economic growth and job creation within the **local** area.

<https://dorsetlep.co.uk/>

## Funding

Unlike other authorities still in receipt of the Revenue Support Grant, Dorset Council no longer receives any government contribution to running costs with Council Tax contributions making up 82% of total income, the rest primarily made up of business rates. Therefore, successful local businesses are vital.

To pay for large scale initiatives (road schemes/ business schemes/etc), Local Authorities need to rely on successful applications to specific Central Government (and for now, EU) Funds - these are made available to support government policies and initiatives. These would need to meet the policies set by the Department for Business, Innovation and Skills, and would generally need to combine education/skills and/or employment opportunities. Dorset Local Enterprise Partnership has secured a total of £98.5 million through the Government's Local Growth Fund for projects that benefit the local area and economy. Dorset Growth Deals bring together a mix of local, national and private funding.

Funding applications are made on behalf of a Local Authority by the Local Enterprise Partnership (LEP). Dorset LEP is therefore crucial to the success of any major plans to develop (and protect) Dorset. **N.B.** North Dorset is currently **not represented** on the LEP Board by either local business leads or local authority representatives.

Funding obtained by Dorset LEP has, to date, primarily been focused in the South East (now BCP – Bournemouth, Christchurch, Poole) with the focus now being to create a “City by the Sea” (Bournemouth & Poole College £2.5m, improvements around the Port of Poole £23.3m, Holes Bay £5m, Bournemouth International Growth Programme £45.2m to name a few).

Gillingham Access to Growth was awarded £3.45m to contribute towards the new local roads needed for the new housing and 9 hectares of employment land. Included in the Gillingham plans is the Enmore Green Link Road.

The scheme is for a 500m Link road between B3081 and A30 west of Shaftesbury. This link road is considered essential for the Gillingham development. Congestion and pollution at Shaftesbury is already an issue which would be exacerbated by the proposed development without the link road - *DTLB*

<https://dorsetlep.co.uk/delivery/local-delivery-the-growth-deal/gillingham-access-to-growth/>  
<https://www.bournemouthecho.co.uk/news/15128215.plans-to-build-1800-new-homes-in-gillingham-and-turn-town-into-a-commuter-route-to-london/>

Whilst the Gillingham development is only a few miles away, developments further afield should also be monitored and their impact/opportunities assessed.

The new Dorset Council must be able to ensure that funding is directed not just to the larger built up areas such as Dorchester and Weymouth, but also to the rural areas, where many businesses operate with varying degrees of infrastructure support (not just roads, but access to mobile signal/adequate wi-fi speeds/4G/5G/rail access/public transport/adequate parking facilities in towns etc). Neighbourhood Plans and their integration within Local Plans, and Authority wide strategies should include full dialogue with all involved, at the earliest stage so that communities contribute to Dorset, and Dorset protects and enhances communities.

Continuing research will need to focus on the changing aims of each government, and the new funds that become available to support various and changing policies.

If communities have a shared goal, and can apply ingenuity, and resilience, funding applications can be adapted to fit within the governments funding priorities whilst retaining the overall aims.

## Supporting documentation

Extracts relating to Shaftesbury from the Buro Happold North and north east Transport Study 2010

### 5.4 Corridor Analysis

The results of the transport modelling are presented in sections 5.5 to 5.7 of this report.

Figure 5—1 to Figure 5—9 show the results of the traffic modelling as bar charts. The modelled largest single directional flow for the 2008, 2016 and 2026 AM and PM peak hours is shown for each road identified along the bottom of the chart. Additionally, the estimated ratio of flow to link capacity is given and the estimated ratio of flow to pinch-point capacity is given for each link. The 'pinch-point' capacity refers to a point along the road at which it is estimated that the capacity is lowest due to poor topography, visibility, width and/ or bendiness characteristics. The ratio of flow to capacity measurements show how likely congestion will be on the roads by indicating how much of the physical capacity (number of vehicles/ hour) is taken up by the predicted traffic flow. Thus, anything over 100% demonstrates that the road is unable to cope with the level of traffic on it; it is reasonable to assume that anything above 85% is demonstrating that the road is under pressure

### 5.5 A350 Corridor

Figure 5—1 shows the results of the traffic modelling for the A350 corridor. The ratio of flow to capacity results are shown in Figure 5—2 and Figure 5—3.

From the results shown in Figure 5—3, the routes that are closest to their design capacity at pinch points by 2026 are the C13, the A350 between Blandford Forum and Poole and the A357 and A3030 between Blandford Forum and Sherborne.

**All the roads are predicted to remain within their link capacity during the study period, although localised congestion will become a problem at pinch points on those routes with a ratio of flow to capacity nearing 80%. This occurs particularly during the AM peak hour.**

### 6.6 Blandford Forum to Shaftesbury

There are two parallel roads between Blandford Forum and Shaftesbury. The A350 is designated as the primary route. This section of the A350 passes through six villages namely; Cann, Compton Abbas, Fontmell Magna, Sutton Waldron, Iwerne Minster and Stourpaine. The route is characterised by a single carriageway road. The A350 Corridor Study (Dorset County Council, 2006) assessed the quality of the route looking at horizontal and vertical alignments, carriageway widths, bendiness (defined as total change in direction per unit distance), and hilliness (total rise and fall per unit distance). The results of the study indicate that 78% of the link between Shaftesbury and Poole is of poor or worse standard. Poor was classified in the study as:

The 'average carriageway width is mainly less than 6m. Road is generally acceptable for speeds of only 50-60km/h due to its poor vertical and horizontal alignment.'

The A350 Corridor Study indicated that there is very poor alignment, tight bends, narrow road widths and poor visibility at Stepleton Bends, through Fontmell Magna, Compton Abbas and Cann. It classified these sections as being of a very poor standard.

Figure 6-1 demonstrates that the A350 carries the lowest amount of traffic of all the routes identified. In 2006 the recorded AADT at Iwerne Minster was 3,100 vehicles. This has grown very little both proportionately and in real terms since 1983 when the AADT at the same site was 2,400.

Table 6-1 indicates that the design capacity on the highest standard section of the A350 is estimated to be 1,296 vehicles per hour.

A reduction factor agreed with Dorset County Council and shown in Figure 6-1 is applied to take account of the bendiness, hilliness and width of the poorest quality sections. The design capacity at 'pinch points' is therefore estimated to be 606 vehicles per hour.

The traffic modelling results for this part of the A350, shown in Figure 6-2, Figure 6-3 and Figure 6-4. Figure 6-4 demonstrate that in 2008 it was operating within the design capacity. The RFC values at pinch points on this route in the AM and PM peak hours in 2008 were 28% and 25% respectively.

The C13 runs parallel to the A350 between Shaftesbury and Blandford Forum. It is accessed via the A30 and B3081 from Shaftesbury and the A350 at Blandford Forum. The A350 Corridor Study (Dorset County Council, 2006) assessed the standard of the relevant sections of the A30, B3081 and C13. It stated that 54% of the route is classified as of a poor or worse standard. Through the village of Melbury Abbas the C13 is classified as an extremely poor due to a combination of very poor alignment, tight bends, narrow road widths, poor visibility and steep topography. The C13 is designated a minor route but traffic count data provided by Dorset County Council demonstrates that it carries a higher volume of traffic than the A350 Figure 6-1 shows the annual average daily traffic for the C13 at Stourpaine to be 6,100 vehicles in 2006. The level of traffic has grown on the C13 by 53%.

Between 1983 and 2006. **This demonstrates that despite the advisory signage direction traffic onto the A350 (the primary route), the C13 continues to be regarded by the majority of drivers as being a more efficient route.**

### **6.12 Gillingham to Shaftesbury**

The B3081 links Gillingham with Shaftesbury. It is a single carriageway road, sections of which are bendy and steep, particularly at Shaftesbury. Figure 6-1 demonstrates that the 2006 recorded annual average daily traffic for this section of the B3081 is 16,500 vehicles. Furthermore, it shows that traffic using the route has grown by 63% since 1983.

Table 6-1 shows the design capacity for the highest standard section of this route to be 1,296 vehicles per hour. A reduction factor, that has been agreed by Dorset County Council, is applied to account for the characteristics of 'pinch points' on this road. This reduces the design capacity to 744 vehicles per hour.

Figure 6-5, Figure 6-6 and Figure 6-7 show the results of the traffic model for the B3081. Figure 6-7 shows that the RFC value in 2008 for pinch points on this link in the AM and PM peak hours was 75% and 72% respectively.

### **6.15 Shaftesbury to Salisbury**

The A30 links Shaftesbury with Salisbury to the east. There are three settlements located on route Ludwell, Fovant, and Barford St Martin. Figure 6-1 shows that the recorded annual average daily traffic in 2006 for this section of the A30 was 6,800 vehicles. Traffic has grown by approximately 19% since 1983. Figure 6-7 shows that the RFC value in 2008 for pinch points on this link in the AM and PM peak hours was 46% and 39% respectively.

### **6.16 Shaftesbury to Sherborne**

The A30 links Shaftesbury with Sherborne. It is a single carriageway link that passes through the settlements of East Stour, West Stour, Henstridge and Milborne Port. Figure 6-1 shows the recorded annual average daily traffic on this link in 2006 was 9,600 vehicles.

The design capacity of the highest standard section of this link is estimated to be 1,296 vehicles per hour. A reduction factor is applied to the poorest standard section of road; this reduces the design capacity to 1,158 vehicles per hour. Figure 6-7 shows that the RFC value in 2008 for pinch points on this link in the AM and PM peak hours was 36% and 38% respectively.

#### Summary

The traffic counters for the Blandford to Shaftesbury Corridor are positioned as follows

#### A350

- Just south of the Royal Chase roundabout
- Between Iwerne Minster and Shroton

#### B3081

- Just south of Melbury Motors in Cann but before the turning to Zig Zag Hill

#### C13

- Stourpaine Down
- \*New counter placed in Melbury Abbas during 2017

When taking into consideration the difference between the traffic flows at Cann Common (Melbury Motors) and the new position in Melbury Abbas it reveals that 35% of the traffic counted at Melbury Motors continues on the B3081 via Zig Zag Hill.

This means that historical traffic flows through Melbury Abbas could potentially have been at 65% of levels taken into consideration previously.

**DCC Traffic Counts Shaftesbury to Blandford Corridor**

6th March 2017	Total Traffic		Cars/LGV's		Small HGV's		Large HGV's		Total HGV's	
Northern End Total Traffic	13004		12082		731		191		922	
A350 (Northern end)	4552	35%	4071	34%	335	46%	146	76%	481	52%
B3081 Cann Common	8452	65%	8011	66%	396	54%	45	24%	441	48%

**DCC Traffic Counts B3081 and C13**

6th March 2017	Total Traffic		Cars/LGV's		Small HGV's		Large HGV's		Total HGV's	
B3081 Cann Common	8452		8011		396		45		441	
C13 Melbury Abbas	5494	65%	5146	64%	308	78%	40	89%	348	79%
B3081 Zig Zag Hill	2958	35%	2865	36%	88	22%	5	11%	93	21%

**DCC Traffic Counts excluding east/west traffic via B3081**

6th March 2017	Total Traffic		Cars/LGV's		Small HGV's		Large HGV's		Total HGV's	
North South totals	10047		9217		643		186		829	
A350 (Northern end)	4552	45%	4071	44%	335	52%	146	78%	481	58%
C13 Melbury Abbas	5494	55%	5146	56%	308	48%	40	22%	348	42%

A manual traffic survey was carried out by the A350 Community Group in November 2015. The results also showed that 65% of traffic counted at Melbury Motors either emerged from or entered into Dinah's Hollow.

Counts were taken at the following points –

**A350**

- Compton Abbas (north & south bound)
- Fontmell Magna (at the Fontmell pub – north & south bound, and also east & west bound via West St and Mill St)
- Iwerne Minster (at the memorial – north & southbound, and also east & west bound via Tower Hill)
- Sutton Waldron (at the crossroads with Sutton Hill and The Street – north & south bound and east & west bound)
- Stourpaine (at the White Hart – north & south bound, and east & west bound at Bushes Road)

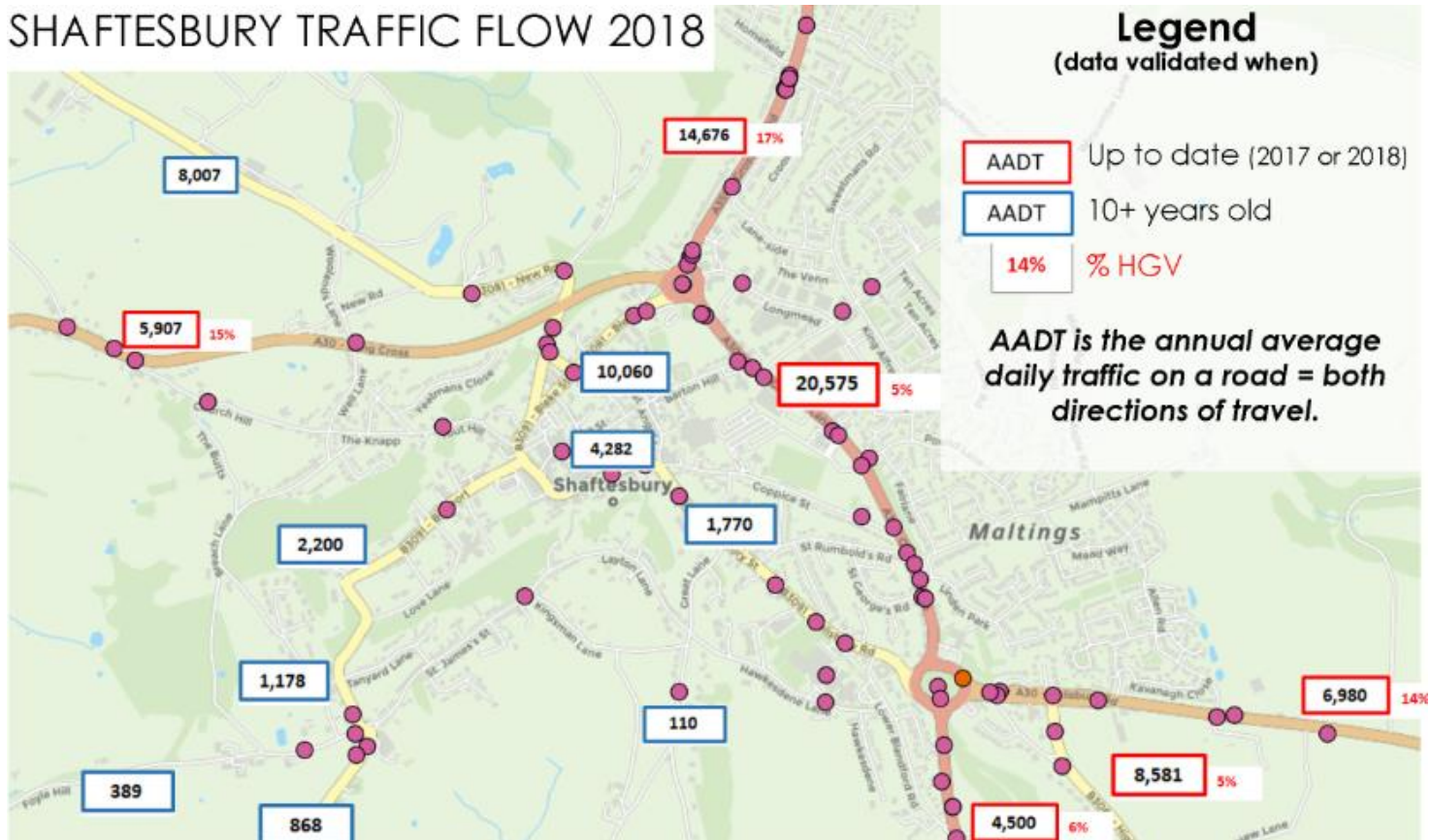
**B3081**

- At the layby just south of the junction with the A30 (north & south bound)
- On a hard standing near Cann Motors (north & south bound via Dinah's Hollow, and east & west bound via Zig Zag Hill)

C13

- National Trust car park (north & south bound)
- Gore Clump (both entrances – north & south bound, and east & west bound via Boundary Lane)
- Fontmell Magna/Ashmore crossroads (north & south bound, and east & west bound)
- Iwerne Minster/ Tarrant Gunville crossroads (north & south bound, and east & west bound)
- Stourpaine/Pimperne crossroads (north & south bound, and east & west bound)

## SHAFTESBURY TRAFFIC FLOW 2018



Six traffic studies were commissioned in 2018 by Shaftesbury Town Council. The results in the Red boxes show the average daily traffic travelling through Shaftesbury.

The counts in Blue represent historic studies

The Pink spots show the locations of all the traffic studies that have historically been undertaken. Some of the key locations have been highlighted in this map to illustrate the volumes in each zone.

- The Department for Transport has predicted that traffic will increase by 50% by 2050, based on the expected growth of population
- Historically HGV; s as a proportion of traffic have grown from 4-5% to 10-15% during the last 22 years

- III. There is no discrimination between peaks and troughs or seasonality. At events such as Gold Hill Fayre, Gillingham/ Shaftesbury show and the Great Dorset Steam Fair some figures will be significantly higher.
- IV. Christy's Lane has seen a 51% increase in traffic in the last 22 years since 1996
  - v. From the South 65% of traffic moved on the C13 and 35% on the A350

With thanks to the A350 group for their contribution to the development of the transport appendix